

Name:

Product code: **2255 and 2256**

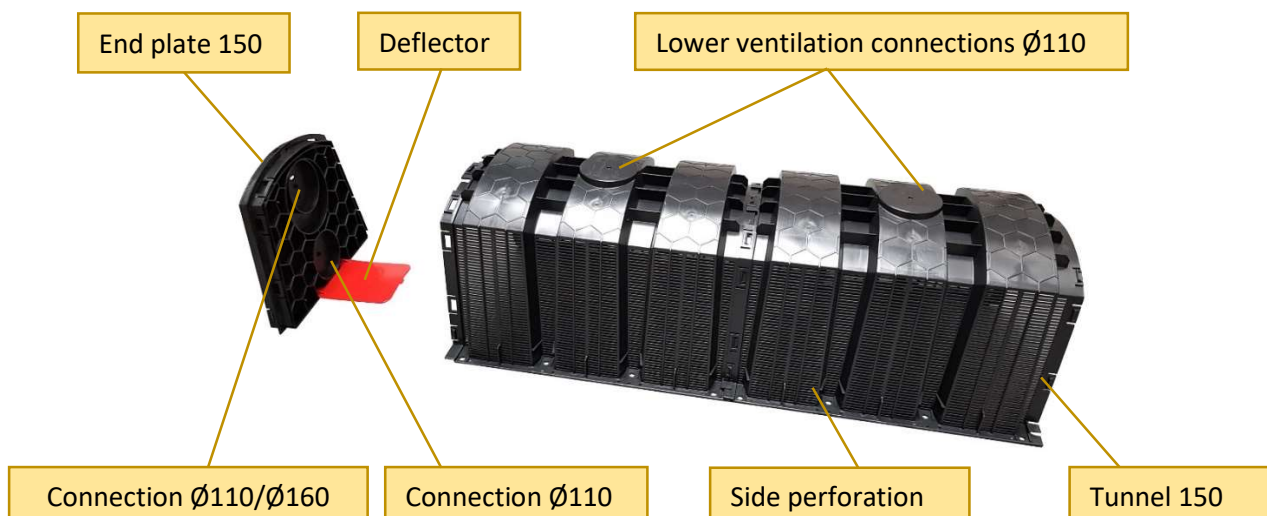
## Infiltration tunnel 150



### **O Product description**

Infiltration tunnels 150 are intended for infiltration of sewage containing pollutants from industrial processes and households into the ground. The construction of tunnels also allows them to be used for storage and infiltration of rainwater. The tunnels are laid in the ground thus creating gravitational infiltration deposits. On the side walls, the tunnel has longitudinal slots through which sewage as well as rainwater can be infiltrated into the ground.

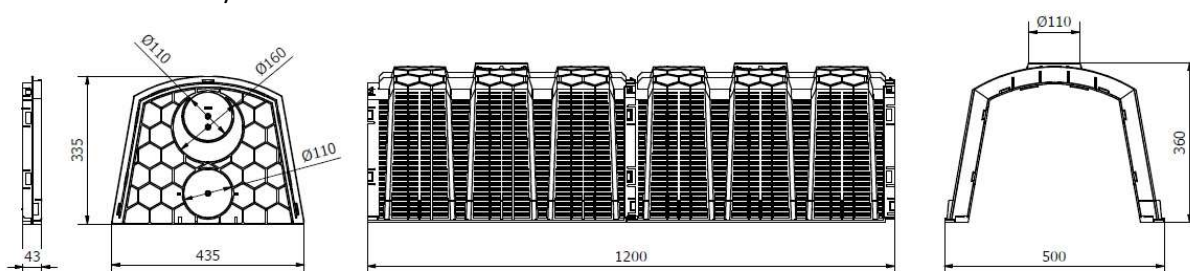
Infiltration tunnels 150 are made of HDPE (high-density polyethylene) by plastic injection. The production method used allows to obtain products with a compact and lightweight structure. Each tunnel has ribs that reinforce the structure. The height of the side perforation of the tunnel is 300 mm. The capacity of a single tunnel is **150 liters**.



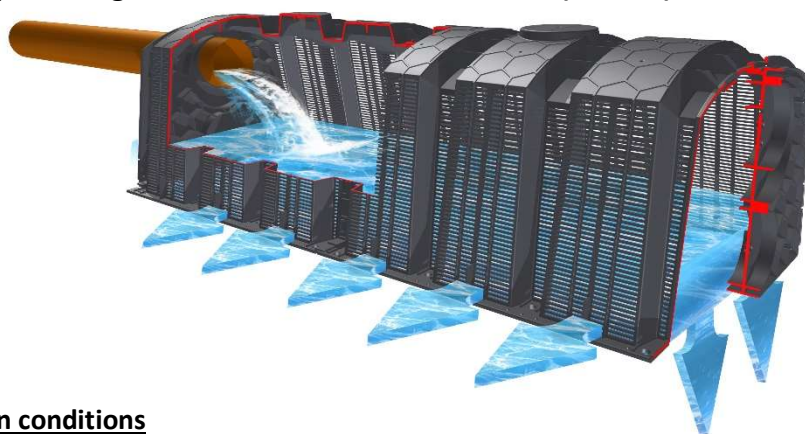
## Product specifications

Name	Length [mm]	Width [mm]	Height [mm]	Weight [kg]	Infiltration surface [m <sup>2</sup> ]			Product code
					bottom	lateral	total	
<b>Tunnel 150</b>	1200	500	360	5	0.6	0.7	1,3	2255
<b>End plate 150</b>	435	335	43	1.2	-	-	-	2256

The dimensions of the tunnels and end plates are shown in the table. The tolerance of all parameters for each tunnel is +/- 2%.



The capacity of a single infiltration tunnel is 150 liters (0.15m<sup>3</sup>)

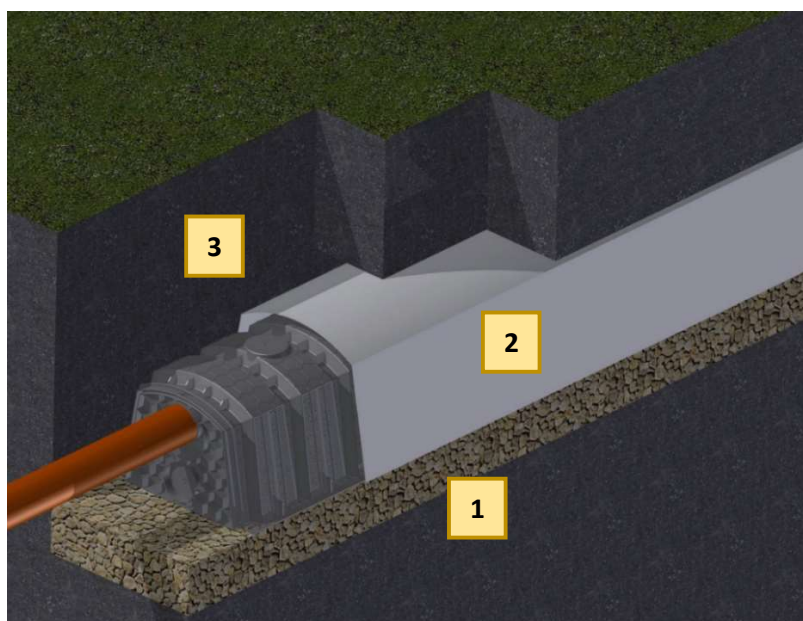


## Installation conditions

At the beginning of the tunnel line, an end plate equipped with a deflector is mounted. The purpose of the deflector is to absorb the hydraulic impact of the sewage or water conveyed. Thanks to its use under tunnels, there is no leaching of the ground at the point of inflow of sewage or water. We also install the end plate at the end of the tunnel line. The bed should be equipped with an air supply at its end. This can be done by using one of the two connections located on the upper wall of each tunnel or by using the top connection in the closing end plate. The connections at the top of the tunnel can also be used to inspect the tunnel line.



The minimum width of the bed excavation should be 0.5 m, and the minimum distance between the lines should be 1 m. The bottom of the excavation should be carefully leveled. At the bottom of the excavation, a layer supporting infiltration (1) consisting of stones with a fraction of 16-32 mm or aggregate (without limestone) with a fraction of 32-64 mm, with a thickness of not less than 100 mm. Provided that the soils are well-permeable. The support layer can be freely increased depending on soil-and-water conditions. The tunnels should be covered with geotextile (2). The tunnel lines should be laid with a slope of about 1%. Tunnels should be laid at a maximum depth of 1200 mm, from the ground surface to the upper edge of the tunnel. The length of a single line of tunnels should not exceed 30 m. Each line of the bed should be equipped with an air supply - lower ventilation. Backfill the whole with native soil (3). A support layer is not required for rainwater drainage.



The bed with tunnels can be installed in places of vehicular traffic as well as under parking lots, where there is traffic of cars up to 3.5 tons. In this case, a minimum of 50 cm should be kept between the ground surface and the upper edge of the tunnel.

#### **Selection guidelines - septic tanks and biological treatment plants**

The Manufacturer recommends the following minimum number of tunnels per user for foundations in well-permeable soils:

- Septic tanks: **3 tunnels per 1 user (PE)**
- Aeration (biological) treatment plants: **2 tunnels per 1 user (PE)**

#### **Selection guidelines - rainwater tanks**

When installing downstream a rainwater tank or linear drainage, the Manufacturer recommends using the following conversion factor:

- **1 infiltration tunnel for every 15m<sup>2</sup>** of roof fields or surface from which water is collected, for the average annual rainfall per 1m<sup>2</sup> = 600 mm.

**The number of tunnels as well as the thickness of the support layer should be matched to the current soil-and-water conditions.**



**1. Prepare the tunnels**



**2. Unplug the deflector**



**3. Drill a hole**



**4. Install the deflector**



**5. Secure with a screw**



**6. Plug the end plate**



**7. Check the connection**



**8. Connect the tunnels**



**9. Plug the closing end plate**



**10. Drill a hole on the ridge**



**11. Install a stack**



**12. Check the connection**

## O Operation and maintenance

The Manufacturer recommends periodic inspections of the bed. It is of importance that the lines of the bed are evenly loaded with sewage or rainwater. In order to avoid the chambers being overgrown with roots, it is forbidden to plant trees or other plants with a long root system in the close vicinity of the infiltration bed made of tunnels 150. All bed placement conditions must be compliant with the Manufacturer's recommendations.

## O Warranty

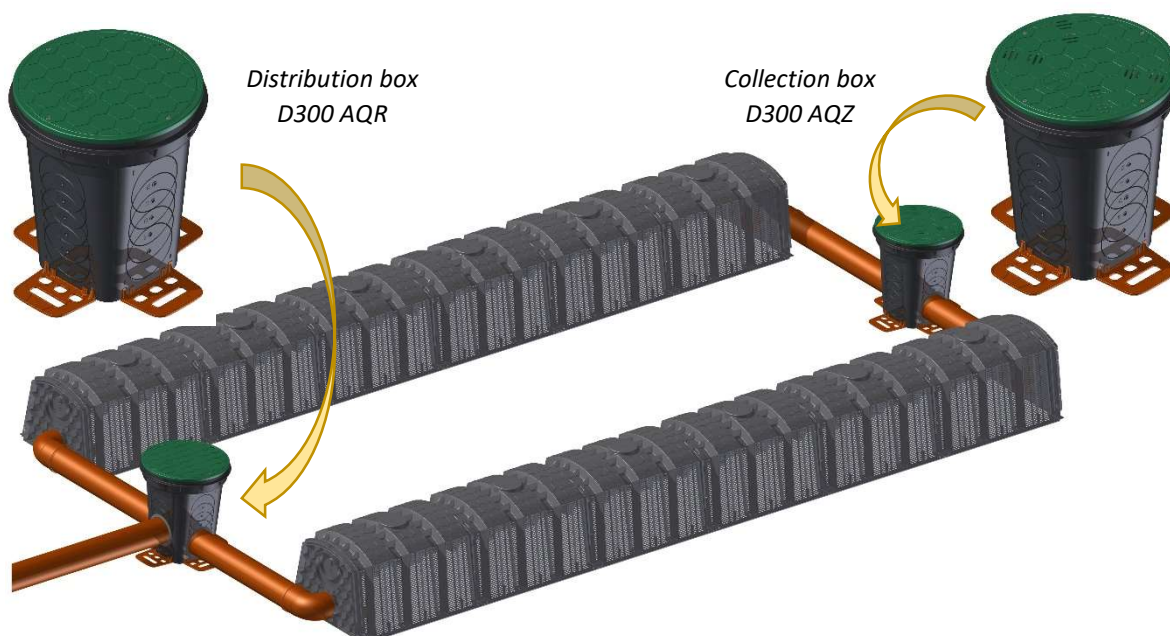
The Manufacturer guarantees the delivery of devices free from defects. In case of detecting a manufacturing defect in the device, which has been confirmed by the TYCNER's Aftersales Department, the device will be repaired free of charge or the defective components will be replaced with new ones. The Manufacturer provides a **three-year warranty** for the device, counted from the date of sale.

## O Related accessories

**The distribution box D300 AQR** is a device responsible for the separation of wastewater into infiltration drainage or biological filter lines. The box can also be used to infiltrate rainwater or perform a technical function in various types of systems.

**The D300 AQZ collecting box D300 AQZ** is a device responsible for aeration of sewage in the infiltration drainage or biological bed. The box can also be used to infiltrate rainwater or perform a technical function in various types of systems.

We install screwed **risers D300 H150 AQ**, made of polyethylene, onto the box. The riser is mounted directly on the box or other risers. Check fit before assembly. Screw the riser using four INOX screws.



**Biological filter (infiltration plot) made on the basis of infiltration tunnels 150, end plates 150, an distribution box AQR and an collection box AQZ.**